

CLAIMS:

1. A device for extinguishing a candle flame, comprising:
a container for holding a quantity of water;

means associated with the container for discharging under pressure a small quantity of
the water as an aerosolized spray of water droplets having a size of from about one to about 1000
5 microns distributed over a steep bell curve, and dispersed in a filled conical spray pattern
sufficient to encompass the flame of a candle to extinguish the flame without requiring contact
between the device and the candle or the candle flame.

2. A device as claimed in claim 1, wherein:
the quantity of water discharged in each dispensing cycle is only up to about 1 ml.

3. A device as claimed in claim 2, wherein:
the quantity of water discharged in each dispensing cycle is only about 0.50 ml.

4. A device as claimed in claim 2, wherein:
the quantity of water discharged in each dispensing cycle is only about 0.08 ml.

5. A device as claimed in claim 1, wherein:
the size of the water droplets averages from about 65 microns to about 70 microns.

6. A device as claimed in claim 2, wherein:
the means associated with the container comprises a trigger sprayer.

7. A device as claimed in claim 3, wherein:
the means associated with the container comprises a finger pump.

8. A device as claimed in claim 2, wherein:
the means associated with the container is a metered dosage pump that discharges a
predetermined quantity of water in each dispensing cycle.

9. A device as claimed in claim 6, wherein:
the means associated with the container is a metered dosage pump that discharges a predetermined quantity of water in each dispensing cycle.

10. A device as claimed in claim 1, wherein:
the device comprises a pressurized aerosol dispenser using a pressurized gas and an actuator as the means for discharging under pressure a small quantity of the water.

11. A device as claimed in claim 10, wherein:
the pressurized gas is an inert gas, and the actuator includes an aerosol valve having a vapor tap through which some of the inert gas is discharged with the water, the inert gas functioning in conjunction with the water to extinguish the flame.

12. A device as claimed in claim 11, wherein:
the inert gas is CO₂.

13. A device as claimed in claim 11, wherein:
the inert gas is argon.

14. A device as claimed in claim 11, wherein:
the inert gas is nitrogen.

15. A device as claimed in claim 11, wherein:
a quantity of gas adsorbent material in which a quantity of the inert gas has been adsorbed is placed in the container to release the inert gas into the container to replace depleted water and inert gas and maintain pressure as the water is depleted from the container.

16. A device as claimed in claim 15, wherein:

the gas adsorbent material comprises a cohesive block of the material.

17. A device as claimed in claim 15, wherein:

the gas adsorbent material is a loose granular or powdered material contained in a pouch that is permeable to the gas.

18. A device as claimed in claim 2, wherein:

the means associated with the container comprises a finger pump dispenser having an actuator button with a .012-inch mechanical break up insert to produce said droplet size and full conical spray pattern.

19. A device as claimed in claim 2, wherein:

the means associated with the container comprises a trigger-actuated dispenser having an actuator button with a .012-inch mechanical break up insert to produce said droplet size and full conical spray pattern.

20. A device as claimed in claim 2, wherein:

the device comprises a pressurized aerosol dispenser using a pressurized gas as a propellant to pressurize and discharge the water, and said dispenser has a .013-inch MBST actuator to produce said droplet size and full conical spray pattern.

21. A process for extinguishing a candle flame on a candle having a wick, comprising the steps of:

providing a dispenser that discharges under pressure a quantity of water as an aerosolized spray having a droplet size of from about one micron to about one thousand microns,
5 distributed over a steep bell curve;

aiming the dispenser toward the candle flame while holding the dispenser in spaced relationship to the flame; and

actuating the dispenser to discharge the spray of water droplets against the flame to extinguish the flame and prevent burning and smoking of the wick.

22. A process as claimed in claim 21, further including the steps of:
discharging a quantity of an inert gas with the water, whereby the inert gas facilitates extinguishment of the flame.

23. A process as claimed in claim 22, wherein the inert gas is CO₂, and further including the steps of:

mixing the CO₂ with the water as the water is discharged, to cause a bubbling reaction, producing a fog-like discharge of the water and CO₂.

24. A process as claimed in claim 23, including the step of:
adding a surfactant to the water to cause foaming of the water as it is discharged.